  - (b) *Leo* Brehm, 1829 (gender: masculine), type-species under the plenary powers in (1) above, *Felis leo* Linnaeus, 1758.
- (3) Place the following specific names on the Official List of Specific Names in Zoology:
  - (a) *troglodytes* Blumenbach, 1775, as published in the binomen *Simia troglodytes* (the specific name of the type-species of *Chimpansee* Voigt, 1831);
  - (b) *leo* Linnaeus, 1758, as published in the binomen *Felis leo* (the specific name of the type-species of *Leo* Brehm, 1829).
- (4) Place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  - (a) *Pan* Oken, 1816, published in a work rejected by the Commission for the purposes of zoological nomenclature;
  - (b) *Theranthropus* Brookes, 1828, as suppressed under the plenary powers in 1 (b) above;
  - (c) *Panthera* Oken, 1816, published in a work rejected by the Commission for the purposes of zoological nomenclature.

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REPLY TO R. G. VAN GELDER

By G. B. Corbet, J. E. Hill, J. M. Ingles and P. H. Napier (*British Museum (Natural History), Cromwell Road, London SW7 5BD*)

We are in full agreement with the two principal points made by Dr. Van Gelder, namely that Oken (1816) is exceedingly confused and ambiguous with respect to the names *Pan* and *Panthera*; and that the recent nomenclature of these genera has been unstable. We base our case primarily on the fact that throughout the last 50 years the names *Pan* and *Panthera* have been used very much more frequently than any alternatives (the use of *Felis* for the big cats is irrelevant here since it implies an alternative taxonomic view). For example, in recent volumes of the journal *Folia Primatologica* ten papers dealing with the chimpanzee use *Pan*; none uses an alternative. Similarly in *Primates* seven papers use *Pan*; none uses an alternative. That this situation arises from the Commission's recommendation that existing usage is to be maintained pending a decision does not alter these figures. We also agree with Van Gelder that the greatest need is for a clear and early decision one way or the other.

COMMENT ON "*ACRYDIUM UNDULATUM* SOWERBY, 1806: PROPOSED ADDITION TO THE OFFICIAL LIST". Z.N.(S.) 1472

(see volume **18** : 6)

By Kjell Ander (*Linköping, Sweden*)

To be able to decide if *Acrydium undulatum* Sowerby, 1806 can be identified with any *Tetrix*-species, the name thus being a clear synonym, it is necessary to study Sowerby's publication, particularly his descriptions and figures, also from a general point of view. Only in this way will one get a correct understanding of his capability as zoological author.

Sowerby describes a number of animals, from mammals to corals. The figures are in most cases carefully made, better than many others from his time. Sowerby was an artist, known as miniature painter. Some figures are very exact, as that of *Cicindela*, others not so good, e.g. *Gryllus viridulus* and the birds. There are several passages, where the descriptions are contradictory or erroneous and shall be discussed below.

The text of every species begins with "gen. char.", followed by "spec. char.". If more than one species of a genus is dealt with, the "gen. char." is as a rule not repeated. These diagnoses are often completed with shorter or longer passages.

Page 45, tab. 22, gives the description of the fish "Zeus Opah" (= *Lampris pelagicus* Gunn.). "Gen. char." begins: "Body very deep, compressed sideways, consisting of seven branchiostegious rays . . .". This description is obviously erroneous and perhaps a misprint; it is, however, not corrected in the later parts of the book (the plate is dated May 1, 1805).

Page 47, tab. 43, describes a new "cancer". In the "gen. char." one notes the words "Tail jointed, unarmed . . .". Both the figure and the "spec. char." indicate a large spine on the third segment.

Page 41, tab. 20, deals with "*Phalangium diadema*". The first words in "gen. char." are: "Palpi two, filiform". Three lines further down one reads: "Feelers filiform". Palpi and feelers are the same structure; moreover, the pedipalps are large (inexactly given different form in the figure) and in "spec. char." described as "large, first joint spinous". Apparently Sowerby had not a clear understanding of the structure.

Page 37, tab. 18, describes and depicts "*Cicindela hybrida*". "Gen. char." begins "Antennae setaceous. Palpi six, filiform . . .". Let us compare this with the "gen. char." for *Carabus s. lat.* p. 55: "Antennae filiform . . .", not a word about the palpi. *Cicindela* and *Carabus s. lat.* possess antennae of the same kind, threadlike or filiform. The statement that six palpi were present sounds a little curious for a modern entomologist, but is probably taken from some older author, who interpreted the galea as a palp. Anyhow, all these beetles are alike in these structures.

In the "gen. char." for "*Staphylinus*", p. 115, the antennae are said to be monilicorn, but the "spec. char." and the figure (tab. 54) give them as serrated. It seems that Sowerby did not realize that the generic diagnosis must be broader than the specific.

It is not uncommon among contemporaneous authors, that in their species descriptions they use structures which are insignificant or hardly characteristic. One must, however, require that they do not contradict the genus diagnosis or disregard the publications referred to. Such a case is met with in the descriptions of *Ammophila* (p. 67). Although Sowerby had W. Kirby's good works available, he gives as species character the number of antennal joints, in one species as 14, in another as 13. This is, as was well known to Kirby, a sexual difference.

Another case is "*Apis flavicollis*" (probably *Bombus lapidarius* Linn. male), Part II, p. 39. "Gen. char." is nearly a literal translation of the genus diagnosis for *Apis* in Kirby's *Monographia Apum Angliae*, 1802. Kirby writes: "Os proboscide fracta, inflexa, linguam, cylindricam, elongatam, exerente . . .". Sowerby translates: "Proboscis broken, inflexed. Tongue elongated, cylindrical, exserted . . .". Everybody with knowledge of Latin will immediately see that there is an error in the translation. Moreover, it is obvious from Kirby's monograph (which I have consulted) that the lingua is part of the proboscis.

From what has been said it is obvious that Sowerby's "gen. char." are not, or only partly, written by himself from his own observations but taken from other authors.

The description of "*Gryllus viridulus*" (*Omocestus viridulus* Linn.) is also revealed to contain erroneous description. The figure shows clearly a female of the species. The "thorax" (= prothorax) is said to be "cruciate", a term used by Linnaeus but not by Fabricius and de Geer. As should be obvious to anyone illustrating the animal, this word is inappropriate. The prothoracic lateral keels are somewhat arched, not as in some other related forms, as *Chorthippus biguttulus* Linn. sharply angulated, i.e. cruciate.

Sowerby describes and figures three species of *Acrydium* in Part II, pp. 27–28, tab. 74, *subulatum*, *undulatum* and *nigricans*. The books he cites are Linnaeus's *System. Naturae* and *Fauna Suec.*, deGeer's *Mémoire*, Fabricius's *Entom. System. emend.* and Geoffroy's *Histoire abrégé*. I have studied them to be able to decide what Sowerby may have taken from them for his "gen. char." and "spec. char.". Kevan attributes some significance to the reference to the elytra in the "gen. char.". Linnaeus and Fabricius say "elytris nullis". de Geer, however, has discovered the presence of a very small elytron and deals with it in detail, describing exactly its position, figures it and points out that it corresponds to the "étuis" (elytron) of other grasshoppers. It need not be presumed, therefore, that when Sowerby includes in his description: "Elytra very minute, lateral", he has himself examined the material.

The figures are drawn to natural size. After the "spec. char." for *subulatum* he gives some supplementary words, i.e. "The genus might be divided into two families; one with a straight scutellum, the other with an arched one, with the carina or keel very much elevated". In "spec. char." for *subulatum* he states: "Scutellum straight, longer than the body", and further down: "with its central carina not very much elevated". Sowerby's figure is good and must be interpreted as a female of *Tetrix subulata* Linn. f. *macroptera*. The body size is in full accordance with this. The figure is better than the two others. The hind wings are slightly visible below the pronotal process. The elytron is indicated quite clearly.

The "spec. char." for *undulatum*: "Scutellum the length of the body, arched, white with a red keel and two black undulated, interrupted longitudinal lines. Body griseus. 4 lines". From the supplementary description I cite: "It is principally distinguished by the red arched ridge of the scutellum . . . . The dilated sides of the scutellum are white . . .". The figure shows the insect in dorsal view. The form of the carina can thus not be seen, neither the abdomen, the wings or the elytra. The antennae are drawn a little too long.

To the third species, *nigricans*, we must pay some special attention. It is figured in side view. "Spec. char.": "Scutellum the length of the body, arched. The body black. Posterior thighs with a whitish spot. 3.3/4 lines". In the following text we find the words: "**It is one of that order in which the scutellum is arched and very much elevated** (underlined by K.A.). The description and figure do not agree well because the figure quite clearly shows that the pronotal process does not reach the abdominal end; the carina is somewhat arched. It must be pointed out that no hindwings are depicted; if existing in the actual specimen they should have been visible in the space between the body and the pronotal process. An elytron is indicated.

Judgement on *undulatum*: The smaller size, 4 lines = 8.4 mm, indicates that **the specimen must have been a male** (not discerned by Kevan) and the drawing is in full accordance with this. According to my experience the colour pattern of *undulatum* occurs somewhat more commonly as a variant in *subulatum* than in *vittata* Zett. I have, however, never met with a specimen with partially red carina. The words in the description which would speak in favour of a species of the *bipunctata*-group are: "scutellum arched". However, in *subulata* the carina is sometimes a little arched anteriorly, even discernible with the naked eye (several specimens in coll. K.A.); it is rarely straight. **Even in Sowerby's own picture of *subulatum* the carina is very slightly arched.** I must lay stress upon the fact that Sowerby divides the species in two groups, as remarked above, and that the words: "scutellum arched and very much elevated" **are repeated only for nigricans. In doing so, Sowerby himself has only placed nigricans in that group** (to which he presumably also assigned *scutellatum* de Geer, the figure of which he had seen). *A. undulatum* did not apparently differ so much from his *subulatum* as *nigricans* did. The words in the description: "The dilated sides of the scutellum" apply much better to a male of *T. subulata* than to a male of *T. vittata*.

Judgement on *nigricans*: The figure shows a specimen with a general shape, which I, being well-acquainted with *Tetrix*, must consider as belonging to a larva.

The reasons for this are: (1) the short pronotal process; no imago has such a short process. (2) Hind wings are not drawn in the figure; if an imago they must have been visible in the space between the process and the abdomen. (3) Larvae of *Tetrix* have a shorter pronotal process and always an arched carina. Only the small brown spot at the place of the elytra as figured in the plate suggests otherwise. Sowerby, however, is not always so exact in the details. The downwardly-bent margin of the pronotal process in larval specimens may easily be taken for an elytron by one not sufficiently acquainted with its morphology, especially when a small spot of different colour occurs on the same place; such specimens occur in coll. K.A. Such an error was made by the experienced orthopterist Fr. X. Fieber, when describing his *Tetrix schrankii*. The question cannot be decided with certainty.

In the light of my examinations of a number of Sowerby's descriptions, my investigation of his three *Acrydium* species leads me to the following interpretation of the three species: (1) *A. subulatum* is *Tetrix subulata* Linn. f. *macroptera*, female. (2) *A. undulatum* is most probably *Tetrix subulata* Linn. f. *attenuata* Sélys, male. (3) *A. nigricans* is probably a larval specimen which cannot be determined specifically; both *subulata* and *vittata* being possible. As Sowerby has got all the specimens from W. Kirby it might be that all have been captured at the same occasion and belong to the same species.

The descriptions of Sowerby do not give any support to the proposal of Kevan, as I have shown above. The proposed change of name is not justified.

In his paper in *Entom. Gaz.* 43, 1953, Kevan deals with the present nomenclatural question. From it I cite: "This (the change of the name) is perhaps a little unfortunate since *Tetrix vittata* has now come to be more or less accepted as the name of the species . . . . The case for invoking the plenary powers in this instance is, to my mind, not strong enough . . . ". And later he writes about the characteristics of *undulatum* "a short, strongly keeled pronotum is emphasized . . .". As I have revealed above this is not at all the case, rather the contrary.

On Kevan's proposal in *Bull. zool. Nom.* 18, 1961, pp. 380–82, I have a few remarks to make. On point 4. Compare with my investigation given above, and note especially the differences in Sowerby's description of *undulatum* and of *nigricans* concerning the pronotal carina. On point 6. Kevan only compares *undulatum* with *bipunctata* Linn., and not with *subulata* f. *attenuata* or *T. tenuicornis* J. Sahlb. It is true that the figure of *undulata* gives a more slender body-form, as Kevan remarks, but this fits well with the f. *attenuata* male. *T. tenuicornis* has never been reported from England but it occurs in northern France, Belgium and Holland. However, as late as in 1940, *T. ceperoi* I. Bol. was discovered in Britain and in 1930, *Chorthippus vagans* Eversm. was found there, both unexpected and until then overlooked. On point 8: Kevan will select as a neotype a specimen from the Dale collection. This specimen must be about 150 years old, and the antennae are lacking. I find it very unwise to select such an old, mutilated specimen which has nothing to do with Sowerby's specimen, as a neotype. **This must be rejected as erroneous in principle.**

REPLY TO K. ANDER

By D. K. McE. Kevan (*Department of Entomology, Macdonald Campus of McGill University, Ste Anne de Bellevue, Quebec, Canada*)

I have a high regard for Dr. Ander's expertise in respect of the western European TETRIGIDAE, and I agree with him that Sowerby's figure is poor. This latter point is not only mentioned by me in the 1961 application, but also a little earlier in the same year (Kevan, 1961, *Ent. Gaz.* 4 : 216–17) when the reasons for regarding Sowerby's species as having priority over *Tetrix vittata* (Zetterstedt, 1821) were quite fully given. I cannot, however, agree with Dr. Ander that Sowerby's description